

NEW *MEGALEUCTRA*
FROM THE EASTERN UNITED STATES
(PLECOPTERA:LEUCTRIDAE)¹

Richard W. Baumann²

The extant *Megaleuctra* fauna represents a recent Nearctic relict (Illies, 1967). *Megaleuctra neavei* Ricker, from Baltic Amber collected at Palmnicken, Prussia (Ricker, 1935), is the only Palearctic representative. *Megaleuctra jewetti* Lewis, another fossil species, is recorded from northern Idaho (Lewis, 1969). There are presently five extant *Megaleuctra* species all from North America. Three species: *M. complicata* (Claassen), *M. kincaidi* Frison and *M. stigmata* (Banks) are known only from the Pacific Northwest. *Megaleuctra williamsae* Hanson is restricted to the southern Appalachians in the Great Smoky Mountains.

This study contains a description of a fifth species *Megaleuctra flinti* from Shenandoah National Park and also the female of *M. williamsae* Hanson. The specimens studied were collected by Dr. Oliver S. Flint, Jr., Smithsonian Institution, Washington, D.C., for whom the interesting new species is named.

The localities where *Megaleuctra* specimens have been collected in eastern North America are areas that also contain other relict faunal and floral elements. The absence of records from the high mountains of northern New England might be due to inadequate collecting.

My experience indicates that *Megaleuctra* is probably restricted to spring-like areas. Water temperature in springs seldom varies more than a few degrees centigrade throughout the year. This temperature stability and the fact that large springs create a limited microclimate would enable stenothermic species to survive temperature extremes. This makes such areas excellent refuges of relict plant and animal species.

¹Accepted for publication: February 7, 1973.

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Megaleuctra flinti NEW SPECIES

(Fig. 1)

Holotype male.—Macropterous. Length of forewings 10 mm; length of body 12 mm. General color brown; legs brown at junction of femur and tibia, becoming gradually yellow toward base and apex; antennae brown and very long. Head as wide as prothorax, general color yellow; broad darkly sclerotized rugose lines in front of each ocellus, anterior line crescent-shaped, posterior lines V-shaped, base of head with broad brown band; ocellar triangle with broad base, posterior ocelli closer to eyes than to each other. Pronotum wider than long, corners slightly flattened, dark broad rugose pattern extending from midline, pattern shaped like back-to-back "J's". Wings hyaline, with small dark patch in costal space beyond cord; venation typical for genus. Abdomen entirely brown, segments unmodified except for terminalia; eighth tergite with very small sclerotized nub located medially near posterior margin; ninth tergite bisected medially, bearing narrow rectangular lobe directed posteriorly, lobe darkly sclerotized near apex and with numerous small teeth-like projections, lateral posterior margins expanded producing large nipple-like processes on each side of sclerotized lobe; subgenital plate large, broad at base, becoming gradually narrower to rounded tip which covers base of subanal probe, lobe at base of ninth sternite long and thin, of equal width throughout, tip rounded. Tenth segment highly modified; supra-anal process heavily sclerotized, with membranous dorsal groove, base broad, becoming gradually narrower toward concave triangular apex, paired lateral projections extending out from near base of apex, tip of projections sclerotized and shaped like broad forked teeth which curve back and up, projections shield thin pointed sclerotized internal structures; subanal probe very long and narrow, basal half enclosed in sheath-like structure, sheath broad at base, becoming abruptly narrow and then wider towards apex, extending to middle of supra-anal process, probe directed upward and then recurved forward over abdomen, apex narrowing to thread-like tip; cerci single segmented, elongate and fairly large (Fig. 1).

Female.—Unknown.

Holotype ♂, Hogcamp Brook, Shenandoah National Park, Virginia, 22-23-V-1970, O. S. Flint, Jr. Type deposited at the National Museum of Natural History, Washington, D. C. as No. 72493.

Megaleuctra flinti can be separated from the other known species by the combination of a rectangular sclerotized lobe on the ninth tergite and an extremely long subanal probe which is encased only along its basal half by a sheath.

Megaleuctra williamsae Hanson

(Figs. 2,3)

Megaleuctra williamsae Hanson (1941:64,65) Great Smoky Mountains, Tennessee.

Allotype female.—Macropterous. Length of forewings 14 mm; length of body 13 mm (excluding extended subgenital plate). General morphology similar to male; pronotum longer than wide, anterior corners nearly 90 degrees, posterior corners cut off forming two small flat sides (Fig. 3). Eighth sternite formed into subgenital plate which extends past tip of abdomen and reaches 2 mm beyond, broad at base, narrowing gradually to tip of abdomen, extended portion long narrow and round in cross section. Ninth sternite formed into long narrow ovipositor-like structure which lies inside the subgenital plate, structure very narrow and extending half the length of subgenital plate. Cerci small and inconspicuous (Fig. 2).

Allotype ♀ deposited at the National Museum of Natural History from the following locality: 10.2 miles east of Gatlinburg, Great Smoky Mountains National Park, Tennessee, 20-V-1970, O. S. Flint, Jr., 1♂, 1♀.

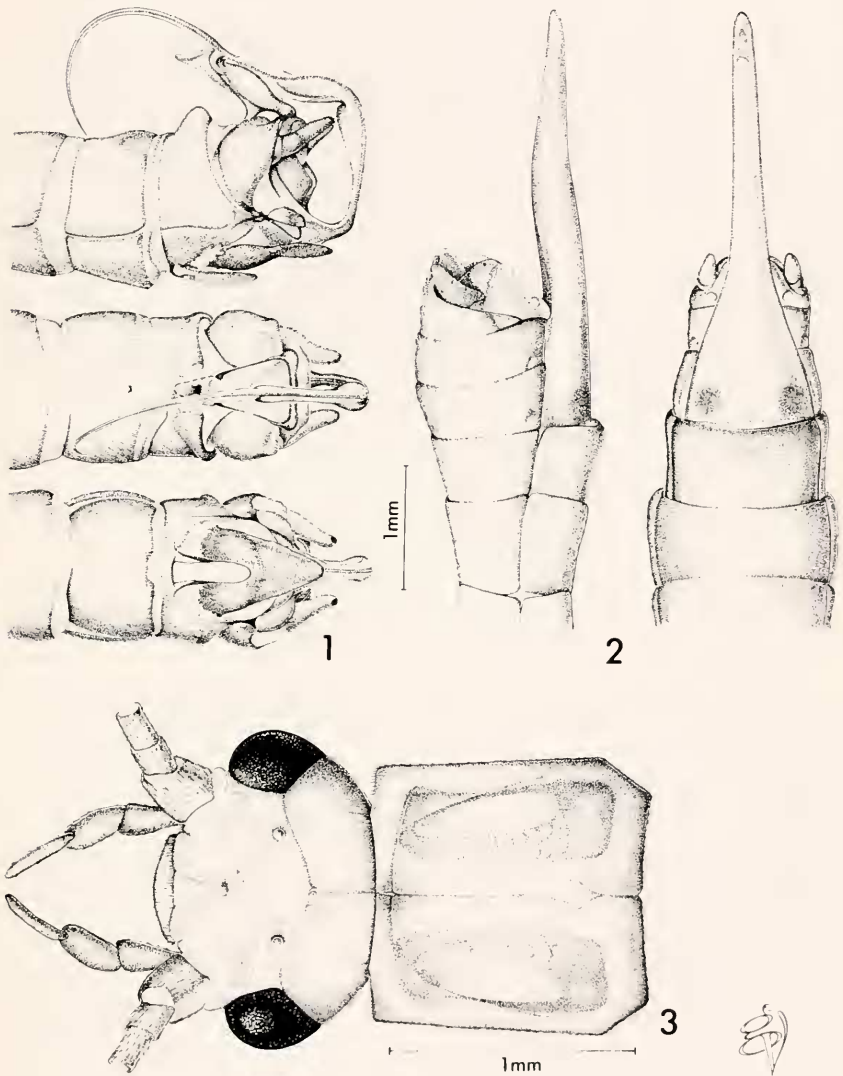


Figure 1. *Megaleuctra flinti*, n. sp., male terminalia, lateral, dorsal (tip of supra-anal process removed) and ventral. Figures 2, 3. *Megaleuctra williamsae* Hanson. 2. Female terminalia, lateral and ventral. 3. Head and pronotum.

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ABSTRACT.—*Metaleuctra flinti* is described from Shenandoah National Park from a single male. A detailed description and drawings are given. The female of *Megaleuctra williamsae* Hanson is described and figured and an allotype designated.—Richard W. Baumann, Department of Entomology, National Museum of Natural History, Smithsonian Institution, Washington, D. C., 20560.

Descriptors: Plecoptera; *Megaleuctra flinti*; new species; Virginia; *Megaleuctra williamsae* Hanson; female.

A NEW HOST RECORD FOR THE
PARASITIC ROVE BEETLE
ALEOCHARA BIPUSTULATA L.
(COLEOPTERA:STAPHYLINIDAE) ¹

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Larvae of the staphylinid genus *Aleochara* are known to be ectoparasites on the pupae of flies within the puparium. All reported American host records for the genus were listed in 1971 by Moore and Legner (Ann. Entomol. Soc. Amer. 64:1184-1185) at which time new records were reported. *A. bipustulata* L. was recorded by them as a parasite of *Hylemya brassica* (Bouché), *H. platura* (Meigen) and *H. floralis* (Fallen). We have recently seen a series of 52 specimens of *A. bipustulata* L. reared from puparia of *Ravinia derelictum* (Walker) during June and August, 1972 at State College, Mississippi by Klois J. Watts. This is not only a new record but from a different family, Sarcophagidae. Previously known hosts for this species belong to the family Anthomyiidae.

¹Accepted for publication: May 3, 1973

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Editor's Note: This paper was originally scheduled for the July 1973, Vol. 84, No. 7, issue of the *Entomological News*.